

3960



3960

C. & G. SURVEY
L. & A.
MAY 19 1917
Acc. No.

Diag. Ch. No.

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: *Miss*

11-5015

DESCRIPTIVE REPORT.

Hydro Sheet No. **3960**

LOCALITY:

Lake Borgne
and Mississippi
Sound

1916-17

CHIEF OF PARTY:

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET "B" 3960

LAKE BORGNE AND MISSISSIPPI SOUND

from

Shell Point to Cat Island Shoals

4 pages of Report
2 " Addenda
1 " Landmarks

General description of the coast.

All the coast west of Lake Borgne Light House is low and marshy, very thinly settled and there are not even any trees in this region. There are two large indentations in the coast, Rigolets and Pearl River, two large bayous, Unknown Pass and Little Rigolets, and a number of small bayous. The prominent objects are the light houses. These are an old unused tower at Rigolets, Long Point Light House, Pearl River Light House, Lake Borgne Light House, St. Joseph Beacon, also the L. & N. R. R. drawbridges over Rigolets and Pearl River, a water tank west of Rigolets and two stacks at Dunbar. There are a few trees on the east bank of Pearl River near the railroad tracks and a large house called Baldwin Lodge, but the first large group of trees near the shore is at Point Clear. There is also a small group of trees, called Cedar Island, between Point Clear and Lake Borgne Light House. East from Point Clear to the limit of the sheet the shore is higher and wooded, mostly with evergreen trees, and quite thickly settled, there being numerous houses all along the shore. Along nearly all of the shore is a beach of white sand, between the trees and the water. The only large indentation in this part of the coast is St. Louis Bay which is nearly two miles wide at the entrance, Point Henderson on the east side being quite prominent. Two rivers empty in St. Louis Bay, the Jordan and the Wolf, and also a large bayou called Bayou Portage. There is also a large bayou called Bayou Cady, just north of Point Clear. The prominent objects along this part of the coast are the Jackson House, a weather beaten church spire between the Henderson House and St. Louis Bay, the cupola of St. Stanislaus College and the square tower of the Catholic church, both close together at Bay St. Louis, the L. & N. R. R. drawbridge over St. Louis Bay, the Catholic church spire at Pass Christian, Merrills Shell Bank Light House and Cat Island Light House.

Outlying dangers and islands.

Grand and Grassy Islands are small, low, marshy islands near Lake Borgne Light House. The Isle au Pitre, near the southeast limit of the sheet, is low and marshy and has a number of small ponds and very irregular outline. Between Isle au Pitre and Pass Christian there is a succession of shoals and shell banks with deep narrow channels between them. As a general rule both shoals and channels extend in the northeast and southwest direction and are low and narrow. There are also a number of small shoal spots and shell banks which are bare at some stages of the tide. The largest of these shell banks is 3800 meters S.S.E. of Merrills Shell Bank Light House and is bare about 5 feet at mean low tide. Another one is 2250 meters E.S.E. of the same light and is bare about 2 ft. at low tide. Another shell bank which is just about awash at low tide lies 3150 meters S.W. of Merrills Shell Bank Light

House. There is also a shell bank, bare about 2 feet at low tide, 3900 meters north of signal West on Isle au Pitre. Another one, bare about 1 foot at low tide is 1750 meters west of Cat Island Light House. The area which bares on all these shell banks is small but they are either surrounded by extensive shoals or occur at one end of a shoal.

Tidal currents.

The tidal currents flow in a general east and west direction, flood tide flowing about W.S.W. and ebb tide about E.N.E. The tidal currents are not very strong except in the narrow passes and channels.

Landmarks.

Water tank about 5 miles W.S.W. of Rigolets, Old white tower, unused lighthouse, at Rigolets, center light on L. & N. drawbridge over Rigolets. Long Point Light House, red structure. Two black stacks, close together, at Dunbar, the western one being the A station. Center light on L. & N. drawbridge over Pearl River. Pearl River Light House, dark colored structure, about 2 miles from shore. Lake Borgne Light House, light colored structure. Saint Josephs Beacon, red framework. Cedar Island, small round group of trees. Group of trees on Point Clear. Jackson House, large house on the shore near signal Wave. Church spire, weather beaten, on shore about 1-1/2 miles east of signal Wave. Cupola of St. Stanislaus College, Bay St. Louis. Square tower of Catholic Church, Bay St. Louis. Center light house on L. & N. drawbridge over St. Louis Bay. Large white house at north end of St. Louis Bay. House on drawbridge over Bayou Portage. Catholic church spire at Pass Christian, light colored structure about five miles from shore. Cat Island Light House, light colored structure.

Inshore dangers.

Rabbit Island shoal, south of the eastern entrance to the Rigolets, has an average depth of 6 feet, with a few 5 foot spots. A beacon is supposed to mark the eastern end of the shoal but the water to the east of the beacon is very little deeper than on the shoal. There is a shoal just east of the entrance to Pearl River with a least depth of 4-1/4 feet, the southern end of the shoal being marked by a small buoy. The shoal north of St. Josephs beacon has a least depth of 6-1/2 feet and a small shoal east of the entrance to Bayou Cady has a least depth of 5-1/2 feet. Square Handkerchief Shoal has a least depth of 2 feet, with 4 feet on the "Tail". The shoal just south of Pass Christian has a least depth of 2-3/4 feet. There is a wreck of a ship about 800 meters off shore at Bay St. Louis, due east of St. Stanislaus College, which is just awash at ordinary high tide.

Musical Shell
Bank Lt.

Bars and channels.

There is deep water in the Rigolets but only about 6-1/2 feet at low tide can be carried over the bar at the entrance. Pearl River is supposed to have a dredged channel of 10 feet over the bar at its mouth but at the time of the survey a least depth of 6-3/4 feet was found in the channel. There is deep water in Grand Island Pass but 9 feet is the most that can be carried into it from the east. Bayou Cady has a dredged channel about 6 feet leading into it. Both the Jordan and Wolf Rivers have dredged channels leading into them, these channels are very narrow with shoal water on both sides, 6-3/4 feet is the most that can be carried into Jordan River and 5-1/2 into Wolf River. A beacon marks the entrance to Jordan River and two beacons at Wolf River but these are all broken off about 2 feet above the water. Seven feet can be carried over the bar at Pass Christian from both sides. There are several channels between Pass Christian and Isle au Pitre, the best of these is South Pass which is marked by four nun buoys.

Anchorage.

Rigolets and Pearl River afford anchorages altho the water is deep and the currents strong in both of these. Heron Bay can be used by small boats and shelter can also be found on both sides of Heron Point and in the lee of Grand and Grassy Islands. Bayou Cady offers protection to small boats. Good protection in all kinds of weather can be found in St. Louis Bay. Shelter can also be found in the lee of Isle au Pitre, in Creole Bay and Grand Pass and to a certain extent in the lee of the shoals and shell banks.

Change of coast line or depths.

There does not seem to be any change of coast line except at the Isle au Pitre. Here the south side of the island has receded considerably and the two islands shown on the present charts north of the west end of the island are no longer there, altho there is a shoal marking their former location. South Shell Bank shown on present chart just north of Isle au Pitre now bares in only one place and that of small area. The chief changes in depths are the shell banks previously described, which are not shown on the present charts as bare.

Dangers shown on previous charts.

The six feet just west of Merrill's Shell Bank Light House were not found altho a shoal having a least depth of 8 feet was found.

New place names.

In several instances the local names do not correspond to the

names on the present chart. Grand island is locally known as Half Moon Island and Grand Island, Pass as Half Moon Pass. Lake Borgne Light House is sometimes called St. Joseph Light House. Merrills Shell Bank Light House is locally known as Pass Marianne Light House. The name Shieldsboro, shown on the present chart in the vicinity of Bay St. Louis, is not used any more at all. Little Rigolets is locally called Blind Rigolets. The large bayou between Rigolets and Shell Point, which has no name on the present chart, is called Unknown Pass.

(Approved
(and excellent report)
H. A. Deane,
Chief of Party.

Respectfully submitted,
Walter D. Sutchiffe
Assistant, C. & G. Survey

ADDENDA TO DESCRIPTIVE REPORT

HYDROGRAPHIC SHEET "B"

Uncharted shoal.

In the close vicinity of 30 08' Lat. and 89 18' Long. an uncharted five foot shoal was located by the ship. This shoal was not developed beyond running limit lines showing the deep water around the shoal. This section is the rapidly changing section in the vicinity of Creole Gap and all sorts of bars and channels are constantly forming there according to native report.

Dunbar Stack.

The two stacks mentioned in Mr. Sutcliffe's report have been taken down at this date and are no longer available as landmarks.

Buoys, etc.

The Lighthouse Inspector of this district informs me that it is his intention to remove all buoys in the area covered by this chart and substitute daymarks and beacons. For that reason attention is not directed to the misplacement of several channel buoys especially in Cat Island Channel. I have to request that when this sheet is inked a bromide copy of same be forwarded to Capt. E. B. Dorry, Inspector, 8th Lighthouse District, New Orleans, for his use in determining the positions of the proposed beacons. I also request that a bromide copy be furnished me.

Shoal W.S.W. of Grand Island.

This shoal is of much smaller extent than is shown on present chart.

Unplotted soundings.

This sheet will show the positions, only, plotted of "L" day immediately east of Shell Point at the extreme western limits of the sheet. The tidal data for this work was missing owing to a breakdown in the automatic tide gauge. I would request that the

Office interpolate the tide for this day and reduce and plot these soundings. As Mr. Rappleye -- Draftsman now attached to the Office -- is familiar with this work I would suggest that the reducers be furnished him and that he reduce and plot these soundings.

Depth curve.

I have made little attempt to draw in the depth curve beyond indicating the limits of the more pronounced shoals.

*N. A. Paraw
Chief of Party*

STATISTICS OF HYDROGRAPHY
MISSISSIPPI SOUND
SHEET "B"

3960

By party in charge of Walter D. Sutcliffe, Assistant, U.S.C. & G. Survey
Steamer HYDROGRAPHER, 1916--17
SCALE 1-40,000

O. & G. SURVEY
L. & A.
MAY 19 1917
Acc. No.

DATE	DAY	VOL	NO. POSITIONS	NO. SOUNDINGS	NO. MILES	BOAT.

1916						
Dec. 13	A	1	83	813	20.50	Launch Dixie.
" 14	B	1	17	200	3.50	"
" 16	C	1	67	763	18.25	"
" 18	D	2	6	58	1.50	"
" 19	E	2	58	688	13.25	"
" 20	F	2	45	401	9.50	"
" 22	G	2&3	63	716	13.25	"
" 23	H	3	23	250	5.75	"
" 27	J	3	40	423	7.75	"
" 28	K	3	13	134	3.25	"
" 30	L	3	42	475	9.75	"
1917						
Jan. 2	M	3	31	369	6.50	"
" 3	N	4	71	852	16.50	"
" 4	O	4	51	601	10.75	"
" 5	P	4	46	523	9.50	"
" 6	Q	4&5	77	829	15.75	"
" 8	R	5	46	429	11.00	"
" 9	S	5	67	801	14.75	"
" 10	T	6	50	551	8.50	"
" 19	U	6	93	633	15.75	"
" 20	V	6	48	426	11.00	"
" 22	W	7	8	64	1.25	"
" 23	X	7	114	870	19.25	"
" 30	Y	7	75	536	15.00	"
" 31	Z	8	35	259	6.00	"
Feb. 7	A'	9	19	224	4.00	"
" 8	B'	9	19	183	4.00	"
" 9	C'	9	88	846	19.75	"
" 10	D'	9	19	210	4.00	"
" 12	E'	10	87	850	17.75	"
" 14	F'	10&11	128	1336	24.25	"
" 15	G'	11	97	1136	20.00	"
" 16	H'	12	81	835	15.00	"
" 21	J'	12	61	661	12.50	"
" 22	K'	12&13	54	565	10.25	"
" 23	L'	13	70	797	13.50	"
" 24	M'	13	66	724	13.00	"
" 26	N	14	99	997	18.25	"

Forwarded

2157

22,028

444.00

 DATE DAY VOL NO.POSITIONS NO.SOUNDINGS NO.MILES BOAT.
 * * * * *

		Forwarded	2157	22,028	444.00	
Feb.	27	O' 14&15	87	977	16.75	Launch Dixie.
Mar	1	P' 15	93	1092	20.50	"
"	2	Q' 15&16	75	892	16.25	"
"	3	R' 16	20	221	4.00	"
"	5	S' 16	55	573	10.50	"
"	6	T' 16	23	237	5.00	"
"	7	U' 16	36	319	5.75	"
"	8	V' 17	104	1187	21.75	"
"	9	W' 17	52	607	12.00	"
"	13	X' 18	67	747	15.00	"
"	14	Y' 18	86	827	18.00	"
"	16	Z' 18&19	63	679	13.00	"
"	17	A" 19	75	641	12.00	"
"	19	B" 19	56	627	13.00	"
"	21	C" 20	56	507	13.00	"
"	24	D" 20	68	493	10.25	"
"	25	E" 20	58	621	12.00	"
"	29	F" 21	125	1252	29.50	"
"	30	G" 21&22	118	1016	21.50	"
"	31	H" 22	41	471	11.00	"
Apr.	9	J" 22&23	154	1589	29.00	Launch ANNE.
"	10	K" 23	26	203	4.00	"
"	13	L" 23	95	746	12.75	"
"	14	M" 24	166	1237	26.00	"
"	16	N" 24	69	441	12.00	"
"	17	O" 25	76	530	12.25	"
"	19	P" 25	131	726	20.50	"
"	20	Q" 25	38	277	7.50	"
"	21	R" 26	108	726	18.50	"
Jan.	5	A' 27	11	129	2.00	HYDROGRAPHER.
Apr.	25	B' 27	124	612	52.50	"
May	2	C' 28	134	1170	31.00	"
"	3	a' 28	59	482	10.00	Launch 51.
"	4	b' 29	77	705	13.00	"
"	4	D' 29	61	576	24.50	HYDROGRAPHER.

Totals:- ~~4844~~ ~~46,164~~ ~~1000.25~~
 4780 45,531 988.85

DESCRIPTIVE REPORT TO ACCOMPANY SUPPLEMENTARY HYDROGRAPHY
IN MISSISSIPPI SOUND AND LAKE BORGNE.

REGISTER NO. 3960.

Date of Instructions. November 1st., 1917.

General Description. In general, the hydrography of the southern part of Mississippi Sound and Lake Borgne between Creole Gap and Grand Island, and from Grand Island to Shell Point, reveals a flat bottom with a gradual slope. There are in this vicinity but few anchorages to protect vessels during strong winds, moreover, the marshes are awash at extreme high water (the latter information was obtained from local fishermen). The few anchorages are described below. These anchorages are navigable by vessels of five to six feet draft and are mostly used by boats engaged in the oyster and fish industry.

Anchorages. Grand Pass. To enter Grand Pass is difficult without local knowledge for there are dangerous shoals and bars at its northern entrance. At the very mouth of the pass, there is a bare shoal which can be passed on either side by allowing a berth of 50 meters on the eastside and about 75 meters on the west side. Careful allowance should be made for currents which are very irregular in this pass. This pass makes a good anchorage during northerly winds. During the oyster seasons the watchman of the Louisiana State Fish Conservation Commission is stationed here.

Drum Bayou. This bayou can not be used as a harbor of refuge for there is a bar at its entrance with but three feet of water over it. During northern winds there is less.

Turkey Bayou. This bayou is of no value as an anchorage, harbor of refuge, or passage to and from Chandeleur Sound, for it has no more than two to three feet of water. At low water there are several bare mud flats.

Three Mile Bayou. This bayou may be used as a harbor of refuge but only for shallow draft vessels of about three feet.

Nine Mile Bayou. This is practically the only harbor of refuge for all winds and for all vessels using these waters. It can safely be entered with five feet draft. It is also a passage to and from Chandeleur Sound.

Blind Pass. During northerly winds, there is little water here which makes it useless as an anchorage.

Survey Methods. Attempts were made to survey Turkey Bayou in its entirety, but being unable to find sufficient water for a boat of 2-1/2 to 3 feet draft, a survey with skiff was resorted to. Under these circumstances, however, no signals could be seen. To build and locate new signals was deemed an unnecessary loss of time so the attempt was abandoned.

Examinations for snags were made at Long Point, La. and at the northeastern entrance of Pearl River, at the former a chain drag 300 feet set to five feet being used. This method proved unsatisfactory because of insufficient equipment. Upon questioning local fishermen and shrimp trawlers who had fished in this vicinity for a great many years, it was ascertained that in their experience in fishing and trawling they had never encountered snags even at low water. This statement can be verified by Mr. C. M. Strong, Bay St. Louis, Miss. a fisherman of long experience in that vicinity.

Over the shoals in latitude $30^{\circ} - 07.5'$ longitude $89^{\circ} - 28'$ and latitude $30^{\circ} - 12'$ longitude $89^{\circ} - 25.5'$, there was found respectively, four to five feet and five to six feet of water. The islands referred to in the instructions have entirely disappeared.

Pass Marianne Channel. The bottom of this channel is very irregular which may be due to the continuous oyster dredging in and around it. While the survey was going on fifteen to twenty oyster dredging vessels were dredging in this channel.

Pass Christian Channel. This channel is approachable by vessels of five to six feet draft and is marked by three beacons, two red and one black. There is no harbor of refuge in and around this channel for winds south of east and west. Sailing directions for entering this channel from westward, as follows:-

"Leave Red beacon No. 4 about ten meters on port beam, steer so as to leave Black beacon No. 1 about ten meters on starboard beam; then steer for end of oyster wharf, from oyster wharf steer so as to leave Red Beacon No. 2 about ten meters on port beam."

The development of Pass Christian channel was plotted on 1:20,000 scale.

Tides. Tides were observed at staff at Malheureux Point and at Bay St. Louis automatic gauge. During the progress of hydrography in Pass Christian and Pass Marriana channels, staff at Bay St. Louis automatic station was read every hour.

Respectfully submitted,

Franz E. Olson

Mate, U. S. C. & G. Survey.

Approved:○

H. & G. Williams

H. & G. Engineer, U. S. C. & G. Survey,
Commanding, Str. HYDROGRAPHER.

5-VEC
Sept. 10, 1917

U.S.S.U.
L.P.S.
H.C.

HYDROGRAPHIC SHEET 3960.

Mississippi Sound and Lake Borgne, Miss. & La., by party
of H. A. Seran in 1916 - 1917.

TIDES.

	St. Louis Bay Feet.
Mean low water or plane of reference on staff	3.7
Mean range of tide	1.6

Hyd. Sheet 3960.

Additional Work

(Position numbers in Red)

Surveyed by Checon; Chief of Party, Seims; positions protracted and soundings plotted and inked by Rosenberg, Aug., 1918.

In order to furnish a distinction between the old work and the new, the position numbers of the latter were shown in red; the old position numbers are in green.

The survey as a whole was good; the area being well covered; the shoals and channels fully developed; the crossings, as a rule, close; and the records, including the boat sheet, well kept.

It was impossible to plot all the soundings owing to the scale of the sheet (1:40,000), so whenever necessary a selection was made and those soundings showing the character of the bottom best, were plotted, although great care was taken not to omit any shoal soundings.

There were some discrepancies in the overlap between the old work and the new, particularly in the channel near Merrill Shell Bank L. H., but there was no way of telling which of the two surveys was at fault or whether it was due merely to the broken condition of the bottom.

Two sets of angles were given to determine Signal Bob, but the two locations differed by nearly

ninety meters; but as the first determination had much the stronger angles and a sum angle which checked closely had been taken, it was decided to use the first location, particularly as the same decision had been made on the boat sheet.

Between positions 14 and 74, the following note appeared in the sounding book: "Sdgs taken inside 9 mile Bayou. No signals except those used which are very poor". As it is better to dispense with sdgs. than to have them undoubtedly wrong, it was decided to reject them. A sounding line was run in 9 mile Bayou later that same day. The same conditions were true of the positions between 14 fifteen and twenty-three J and were treated in the same way.

Between positions 63 & 64 L, one & one-eighth miles west of A Merrill Shell Bank L. H., two zero soundings appear in the sounding book, but as they were questioned by the field party and the launch used, drew considerably more than one foot of water, they were rejected, particularly as there was no indication of such a shoal from the other sdgs.

Some of the work of D & B days fell off the sheet and was protracted and plotted on the topographic sheet and then transferred to a sub-sketch on this sheet.

S. L. Rosenberg, Aug. 16, 1918

ADDRESS
U. S. COAST AND GEODETIC SURVEY
WASHINGTON, D. C.

REFER TO NO.
5-EMK

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

LIBRARY

Place with descriptive report
August 8, 1918.
of hydrographic sheet No. 3960

Drawing Section. *D*

Division of Hydrography and Topography: *✓ HCS*

Division of Charts: *✓*

Tidal reductions have been approved in
11 volumes of Soundings for

HYDROGRAPHIC SHEET 3960

Mississippi Sound, Mississippi and Louisiana
by F. B. T. Siems in 1918.

Plane of reference is
Mean low water, reading

3.9 ft. on staff at Bay St. Louis
2.7 ft. on staff at Malheureux Pt.

B. P. Shidy

Acting Chief, Section of
Tides and Currents.

Applied to Chart 878 6/9/48 m. Hunsberger made
" " " 878-SC 2-21-67 ALLEN 1/6/89

19 ✓
+ 9 ✓
145